knowledge about transmission, HPV related cancers and genital diseases, and vaccine efficacy. The most common reason parents reported for not vaccinating their daughters was the lack of a physician recommendation (44%), which represents missed opportunities, as all daughters were eligible for vaccination. The remaining parents declined vaccination because they lacked information (21%), felt that their daughters were too young (13%), had safety concerns (11%), believed that vaccination was unnecessary due to abstinence (5%), or worried that vaccination could promote unsafe sexual practices (3%). Girls who were not offered the vaccine were younger on average than those who declined vaccination (12 ± 1.3 vs. 13.5 ± 1.8, p = 0.01). Race, country of origin, religious affiliation, income, private vs. public clinic site, and knowledge did not differ between those who declined vaccination and those who were not offered vaccination.

Conclusions: Missed opportunities by clinicians were the most common reason for non-initiation of vaccination in this diverse cohort, and was especially common for girls ages 11-12, for whom routine vaccination is recommended. Most parents who declined vaccination expressed a desire for information on indications, efficacy, and safety. Education of both parents and physicians on the rationale for vaccination at ages 11-12 can improve uptake.

Sources of Support: Centers for Disease Control and Prevention, UO1 grant #IP000636-01. American Cancer Society Mentored Research Scholar Grant #MRSG-09-151-01. American Cancer Society Cancer Control Career Development Award for Primary Care Physician #CCCDA-10-086-01.

160.

STAYING AHEAD OF THE RACE: HPV IMMUNIZATION IN BOYS AND GIRLS ACROSS AN URBAN AND SUBURBAN HEALTHCARE SYSTEM

Neelab Abdullah [1], Connie Chen [2], Jennae McCulley [1], Harjoat Singh [1], Samantha DeMarsh [1], Sarah Worley, MS [3], Kim Giuliano, MD [4], Ellen S. Rome, MD, MPH [3].

[1]Cleveland Clinic Summer Research Intern Program; [2]Cleveland Clinic Summer Intern Program; [3]Cleveland Clinic; [4]Cleveland Clinic Children's Hospital.

Purpose: Human papillomavirus (HPV) is the most common sexually transmitted infection in adolescents, occurring in 1 million 15- 19 year olds annuallyCurrent guidelines recommend vaccination for girls (ages 9-26 years) and boys (11-26 years) beginning at age 11-12 years, with catch up immunizations if started later. In the USA, HPV vaccination rates are low: 53% for girls and 8% for boys, with only 35% of girls and 1% of boys completing the series (CDC 2011).

Hypothesis: A large health system with electronic medical records (EMR) and a wellness oriented patient population should have higher HPV vaccination rates than the national average. Prior attitudinal survey from within our health system found higher intention to vaccinate in urban, indigent settings than in suburban, affluent sites (Gillespie et al 2011); in our population, urban settings are expected to have higher immunization rates than suburban sites.

Methods: A sampling of 5,355 out of 15,322 patients seen for well visits across 15 suburban family health centers and 3 urban centers were evaluated by retrospective chart review. Data was de-identified and included birthdate, gender, primary care provider, location of provider, and vaccination initiation and completion. If vaccinated, the dates, prescribing physician and health center location were recorded for each dose. Data was entered into REDCap and analyzed using JMP Pro 10.0.

Results: Charts of 2893 girls (mean + SD current age: 20+3.3) and 2462 boys (mean + SD current age: 20+3.1) were reviewed. HPV vaccine series initiation/completion rates were significantly better than the national averages: 1844 (64%) girls,489 (20%) boys received at least one dose of HPV vaccine, and 51% girls, 8.6% boys completed the series ($P < 0.001$ for all comparisons). 17% of girls ($N = 494$) and 10% ($N = 244$) of boys received primary care at an urban site. Initiation of series occurred at a mean age of 16.0 years (range 10.5-26.5) versus 16.5 years (10.3-25.1, $p = 0.002$) for suburban versus urban girls, and 17.4 years for suburban boys (range 13.1-23.7) and 17.6 years for urban boys (13.8-23.3, $p = 0.23$). Compared to suburban sites, urban sites had significantly higher vaccine initiation rates among both girls (79% vs. 61%, $P < 0.001$) and boys (37% vs. 18%, $P < 0.001$). Completion of series was documented for 67% of urban vs 48% of suburban girls ($p < 0.001$), and for 13% of urban vs. 8% of suburban boys ($p = 0.019$). Among those who initiated vaccination, completion of series was documented for 86% of urban vs 79% of suburban girls ($p = 0.005$), and for 34% of urban vs. 45% of suburban boys ($p = = 0.068$).

Conclusions: HPV vaccination rates within a health system with an EMR are higher than the national average for boys and girls, with urban sites more successful at vaccination initiation and completion than suburban sites. Limitations of our sample include patients leaving the health system and completing vaccination elsewhere, as well as variabilities in sample size across sites.

Sources of Support: None.

MENTAL HEALTH

161.

SOMATIC SYMPTOMS DURING ADOLESCENCE: DOES PARENTING STYLE PLAY A ROLE?

Rachel S. White, PhD, Constance Wiemann, PhD, Beth Garland, PhD.

Baylor College of Medicine.

Purpose: A positive relationship exists between anxious and depressive symptoms and somatic symptoms in children and adolescents. Somatic symptoms have been associated with physical discomfort, poor school attendance, social difficulties, and frequent medical visits. Prevalence studies suggest that in youth, somatic symptoms are most common within adolescent samples. In one study, 23% of 13 to 17 year olds reported somatic symptoms over a one year period (compared to 13% of 2 to 6 year olds and 17% of 7 to 12 year olds). Thus, interventions aimed at decreasing such symptoms among adolescents are important. Behavioral interventions taught directly to the patient are common. Little is known about other systems within a child's environment and the role they play in the development or maintenance of somatic symptoms. It may be that behavioral interventions could be more effective if augmented with specific parenting strategies. The current study examined ways in which different parenting styles (e.g., authoritarian, authoritative, and permissive) relate to somatic symptoms in adolescents experiencing anxious or depressive symptoms. Understanding parenting styles and how they relate to